

program delivery system with menu selection of programs, comprising:

- receiving a television program from one or more headends;
- receiving subscriber input through an interface within a set top terminal, the set top terminal having microprocessor instructions for prompting generation of menus;
- communicating through a modem with the one or more headends, comprising:
 - transmitting data based on the subscriber input;
 - receiving data from the one or more headends; and
 - downloading data from the one or more headends to a local storage using the modem; and
- displaying the television program and/or information based on the received data.

REMARKS

Claims 1-16 and 18-59 are pending in this application. By this amendment, claims 1, 14, 24, 30, and 42 are amended. Support for the amendments can be found at least on page 37, lines 14-20 of the specification. No new matter is introduced. Reconsideration and prompt allowance of the claims is respectfully requested.

35 U.S.C. § 102 Rejections

Claims 1, 14, and 24-25 are rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent 5,357,276 to Banker et al. (hereafter Banker). The Applicants respectfully traverse. Banker is directed to a near video on demand (NVOD) time shifting feature for a subscriber terminal. The feature emulates the video cassette recorder functions of pause, fast forward, and rewind for a NVOD service subscription. However, Banker does not disclose or teach “a hardware upgrade” and “wherein the hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 1. Since Banker does not disclose or teach all of the elements of amended claim 1, claim 1 is allowable over Banker.

With respect to independent claim 14, Banker does not disclose or teach “a hardware upgrade” and “wherein the first hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 14. Since Banker does not disclose or teach all of the elements of amended claim 14, claim 14 is allowable over Banker.

With respect to independent claim 24, Banker does not disclose or teach “a hardware upgrade” and “wherein the hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 24. Since Banker does not disclose or teach all of

the elements of amended claim 24, claim 24 is allowable over Banker.

Claim 25 is allowable because it depends from allowable claim 24 and for the additional features it recites. Applicants therefore respectfully request withdrawal of the rejection of claims 1, 14, and 24-25 under 35 U.S.C. §102 (e).

35 U.S.C. § 103 Rejections

Claims 1-3, 10-16, and 18-29 are rejected under 35 U.S.C. §103 (a) as being unpatentable over U.S. Patent 5,192,999 to Graczyk et al. (hereafter Graczyk) and Banker. The Applicants respectfully traverse.

Graczyk is directed to a multipurpose computerized television system that generates a plurality of video images in association with a personal computer. The personal computer receives a plurality of television signals and directs the signals to be displayed. However, neither Graczyk nor Banker, individually or in combination, discloses or teaches “a hardware upgrade” and “wherein the hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 1. Since none of the references discloses or teaches all of the elements of amended claim 1, claim 1 is allowable.

Claims 2-3 and 10-13 are allowable because they depend from allowable claim 1 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 1-3, 10-13 under 35 U.S.C. §103 (a).

With respect to claim 14, neither Graczyk nor Banker, individually or in combination, discloses or teaches “a first hardware upgrade” and “wherein the first hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 14. Since none of the references discloses or teaches all of the elements of amended claim 14, claim 14 is allowable.

Claims 15-16 and 18-23 are allowable because they depend from allowable claim 14 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 14-16 and 19-23 under 35 U.S.C. §103 (a).

With respect to claim 24, neither Graczyk nor Banker, individually or in combination, discloses or teaches “a hardware upgrade” and “wherein the hardware upgrade downloads data from the one or more headends to a local storage” as recited in amended claim 24. Since none of the references discloses or teaches all of the elements of amended claim 24, claim 24 is allowable. Since none of the references discloses or teaches all of the elements of amended claim

24, claim 24 is allowable.

Claims 25-29 are allowable because they depend from allowable claim 24 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 24-29 under 35 U.S.C. §103 (a).

Claims 4-9 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Graczyk, Banker, and further in view of U.S. Patent 5,327,554 to Palazzi,III et al. (hereafter Palazzi). The Applicants respectfully traverse.

Claims 4-9 are allowable because they depend from allowable claim 1 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 4-9 under 35 U.S.C. §103 (a).

Claims 30-42, 45-52, 55-56, and 58-59 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Palazzi and Banker. The Applicants respectfully traverse.

Palazzi is directed to an inexpensive telecommunications device utilizing existent components located in the home or office for creating interactive display terminal for accessing information stored in remote computer databases. However, neither Palazzi nor Banker, individually or in combination, discloses or teaches “the modem downloads data from the one or more headends to a local storage” as recited in amended claim 30. Since none of the references discloses or teaches all of the elements of amended claim 30, claim 30 is allowable.

Claims 31-41 are allowable because they depend from allowable claim 30 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 30-41 under 35 U.S.C. §103 (a).

With respect to claim 42, neither Palazzi nor Banker, individually or in combination, discloses or teaches “downloading data from the one or more headends to a local storage using the modem” as recited in amended claim 42. Since none of the references discloses or teaches all of the elements of amended claim 42, claim 42 is allowable.

Claims 45-52, 55-56, and 58-59 are allowable because they depend from allowable claim 42 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 42-52, 55-56, and 58-59 under 35 U.S.C. §103 (a).

Claims 53-54 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Banker and Palazzi and further in view of U.S. Patent 5,247,575 to Sprague et al. (hereafter Sprague). The Applicants respectfully traverse.

Claims 53-54 are allowable because they depend from allowable claim 42 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 53-54 under 35 U.S.C. §103 (a).

Claims 43-44 and 57 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Banker and Palazzi and further in view of U.S. Patent 5,253,066 to Vogel (hereafter Vogel). The Applicants respectfully traverse.

Claims 43-44 and 57 are allowable because they depend from allowable claim 42 and for the additional features they recite. Applicants therefore respectfully request withdrawal of the rejection of claims 43-44 and 57 under 35 U.S.C. §103 (a).

With respect to the Office Notice taken with respect to claims 10, 12, 18, and 26-29, Applicants respectfully disagree that they failed to traverse the Examiner's Official Notices or that the Applicants' response amounted to an admission of the facts noticed. The Official Notices taken in the first Office Action (Paper No. 2) were rendered moot by the amendments in the previous Office Action response, which amendments the Examiner stated "appear to overcome the art rejection of record" during the personal interview of July 25, 2002. In view of the amendments and arguments in the present response, it is again not necessary to address the Official Notices taken in Paper No. 9. However, if the Examiner maintains the rejections, Applicants hereby respectfully traverse the Official Notices taken and request the Examiner present references supporting the Official Notices.

In view of the above remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Attached hereto are a marked-up version of the changes made to the claims by the current amendment, and a clean version of all pending claims. The attached pages are captioned **"Version with markings to show changes made"** and **"Pending Claims."**

The Commissioner is hereby authorized to charge or credit any deficiencies in connection with this response to deposit account No. 04-1425.

Respectfully Submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1, 14, 24, 30, and 42 have been amended as follows:

1. (Twice Amended) A hardware upgrade for a set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having microprocessor instructions for prompting generation of menus, the hardware upgrade comprising:

an interface to the set top terminal for receiving and processing subscriber input; and
a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input, and

wherein the hardware upgrade downloads data from the one or more headends to a local storage.

14. (Twice Amended) A set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having microprocessor instructions for prompting generation of menus and comprising:

a receiver adapted to receive programs; and
a first hardware upgrade comprising:

an interface to the set top terminal for receiving and processing subscriber input;
and

a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input, and

wherein the first hardware upgrade downloads data from the one or more headends to a local storage.

24. (Twice Amended) A system comprising:

a television program delivery system adapted to deliver television program signals; and
a set top terminal having microprocessor instructions for prompting generation of menus and comprising:

a receiver adapted to receive at least some of the television program signals; and
a hardware upgrade comprising:

an interface to the set top terminal for receiving and processing subscriber input; and

a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives the television program signals based on the subscriber input, and

wherein the hardware upgrade downloads data from the one or more headends to a local storage.

30. (Twice Amended) A television terminal having microprocessor instructions for prompting generation of menus, the television terminal comprising:

a television program receiver;

an interface to the television terminal for receiving and processing subscriber input;

a modem capable of communicating with one or more headends, wherein the receiver receives television program signals based on the subscriber input, and wherein the modem downloads data from the one or more headends to a local storage; and

an output connected to the receiver and the modem, wherein the output accepts the television program signals from the receiver and data signals from the modem.

42. (Twice Amended) A method for delivering television programs through a television program delivery system with menu selection of programs, comprising:

receiving a television program from one or more headends;

receiving subscriber input through an interface within a set top terminal, the set top terminal having microprocessor instructions for prompting generation of menus;

communicating through a modem with the one or more headends, comprising:

transmitting data based on the subscriber input; [and]

receiving data from the one or more headends; and

downloading data from the one or more headends to a local storage using the modem; and

displaying the television program and/or information based on the received data.

PENDING CLAIMS

1. (Twice Amended) A hardware upgrade for a set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having microprocessor instructions for prompting generation of menus, the hardware upgrade comprising:
 - an interface to the set top terminal for receiving and processing subscriber input; and
 - a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input, and
 - wherein the hardware upgrade downloads data from the one or more headends to a local storage.
2. The hardware upgrade of claim 1 further comprising a microprocessor connected between the interface and the modem.
3. The hardware upgrade of claim 2 further comprising memory connected to the microprocessor.
4. The hardware upgrade of claim 1 wherein the modem is capable of communicating with an interactive service.
5. The hardware upgrade of claim 4 wherein the interactive service is outside of the television program delivery system.
6. The hardware upgrade of claim 4 wherein the interactive service is selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
7. The hardware upgrade of claim 1 wherein the modem is capable of communicating with an on-line database.
8. The hardware upgrade of claim 7 wherein the on-line database is outside of the television program delivery system.
9. The hardware upgrade of claim 7 wherein the on-line database contains data concerning one or more applications selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
10. The hardware upgrade of claim 1 wherein the interface to the terminal comprises a four-

wire connector.

11. The hardware upgrade of claim 1 wherein the interface to the terminal comprises a multipin connector.

12. The hardware upgrade of claim 11 wherein the multipin connector is a multipin connector ranging from type DB9 to type DB25.

13. The hardware upgrade of claim 1 wherein the interface to the terminal comprises a SCSI connector.

14. (Twice Amended) A set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having microprocessor instructions for prompting generation of menus and comprising:

a receiver adapted to receive programs; and

a first hardware upgrade comprising:

an interface to the set top terminal for receiving and processing subscriber input;

and

a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input, and

wherein the first hardware upgrade downloads data from the one or more headends to a local storage.

15. The terminal of claim 14 further comprising a display that indicates when the hardware upgrade is in use.

16. The terminal of claim 14 wherein the terminal has an expansion card slot, and wherein the interface comprises at least one card connector adapted for use with the expansion card slot.

18. The terminal of claim 14 wherein the terminal is an HDTV terminal.

19. The terminal of claim 14 further comprising:

one or more additional hardware upgrades connected to the terminal.

20. The terminal of claim 19 wherein the first hardware upgrade and the one or more additional hardware upgrades are connected in a daisy-chain arrangement.

21. The terminal of claim 20 wherein each of the first hardware upgrade and the one or more additional hardware upgrades comprises a SCSI connector, and the daisy-chain arrangement is a SCSI daisy-chain arrangement.

22. The terminal of claim 19 wherein the first hardware upgrade and the one or more additional hardware upgrades are capable of operating simultaneously.
23. The terminal of claim 19 wherein at least one of the one or more additional hardware upgrades is selected from the group consisting of an audio program reception hardware upgrade, an interactive hardware upgrade that receives interactive subscriber input and produces interactive output, and a storage hardware upgrade.
24. (Twice Amended) A system comprising:
a television program delivery system adapted to deliver television program signals; and
a set top terminal having microprocessor instructions for prompting generation of menus and comprising:
a receiver adapted to receive at least some of the television program signals; and
a hardware upgrade comprising:
an interface to the set top terminal for receiving and processing subscriber input; and
a modem connected to the interface capable of communicating with one or more headends, wherein the set top terminal receives the television program signals based on the subscriber input, and
wherein the hardware upgrade downloads data from the one or more headends to a local storage.
25. The system of claim 24 wherein the television program delivery system is a cable television program delivery system.
26. The system of claim 25 wherein the cable television program delivery system comprises an operations center, the operations center transmitting one or more of the programs to the terminal.
27. The system of claim 26 wherein a particular one of the one or more headends transmitting one or more of the programs to the terminal.
28. The system of claim 24 wherein the television program delivery system is a satellite broadcast system.
29. The system of claim 24 wherein the terminal is an HDTV terminal.
30. (Twice Amended) A television terminal having microprocessor instructions for prompting generation of menus, the television terminal comprising:

a television program receiver;
an interface to the television terminal for receiving and processing subscriber input;
a modem capable of communicating with one or more headends, wherein the receiver receives television program signals based on the subscriber input, and wherein the modem downloads data from the one or more headends to a local storage; and
an output connected to the receiver and the modem, wherein the output accepts the television program signals from the receiver and data signals from the modem.

31. The television terminal of claim 30 wherein the output is a video display.
32. The television terminal of claim 30 wherein the output is a connector port.
33. The television terminal of claim 30 further comprising a microprocessor connected to the modem.
34. The television terminal of claim 33 further comprising memory connected to the microprocessor.
35. The television terminal of claim 30 wherein the modem is capable of communicating with an interactive service.
36. The television terminal of claim 35 wherein the interactive service is outside of the television program delivery system.
37. The television terminal of claim 35 wherein the interactive service is selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
38. The television terminal of claim 30 wherein the modem is capable of communicating with an on-line database.
39. The television terminal of claim 38 wherein the on-line database is outside of the television program delivery system.
40. The television terminal of claim 38 wherein the on-line database contains data concerning one or more applications selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
41. The television terminal of claim 30 wherein the television terminal is an HDTV terminal.
42. (Twice Amended) A method for delivering television programs through a television program delivery system with menu selection of programs, comprising:

- receiving a television program from one or more headends;
 - receiving subscriber input through an interface within a set top terminal, the set top terminal having microprocessor instructions for prompting generation of menus;
 - communicating through a modem with the one or more headends, comprising:
 - transmitting data based on the subscriber input;
 - receiving data from the one or more headends; and
 - downloading data from the one or more headends to a local storage using the modem; and
 - displaying the television program and/or information based on the received data.
43. The method of claim 42 wherein the received data comprises information concerning the television program.
44. The method of claim 43 wherein the information concerning programs is selected from a group consisting of quizzes, facts, geographical information, and product information.
45. The method of claim 42 wherein the communicating step further comprises:
 - communicating with at least one interactive service.
46. The method of claim 45 wherein the interactive service is outside of the television program delivery system.
47. The method of claim 45 wherein the interactive service is selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
48. The method of claim 42 wherein the communicating step further comprises:
 - communicating with at least one on-line database.
49. The method of claim 48 wherein the on-line database is outside of the television program delivery system.
50. The method of claim 48 wherein the on-line database contains data related to one or more applications selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.
51. The method of claim 42 further comprising:
 - storing digital data on a storage device.
52. The method of claim 51 wherein the storage device is a disc.
53. The method of claim 52 wherein the disc is a CD.

54. The method of claim 53 wherein the CD is a CD-ROM.
55. The method of claim 51 further comprising:
processing the digital data stored on the storage device.
56. The method of claim 51 wherein the stored digital data concerns one or more applications selected from a group consisting of games, education, encyclopedias, reference, and economics.
57. The method of claim 51 wherein the received data comprises information concerning the television program, and the method further comprises:
monitoring the information concerning the television program; and
retrieving the stored digital data, in response to the monitoring step.
58. The method of claim 42 further comprising:
remotely receiving the interactive subscriber input.
59. The method of claim 42 further comprising:
generating a menu on a television, wherein the subscriber input comprises menu selections.